**Technology**
**Training**
**Services**

# Instructional Strategies for Effective Training Delivery

MARICOPA
COMMUNITY
COLLEGES

# Instructional Strategies
# for
# Effective Training Delivery

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# Technology Training Services Vision & Mission

**Vision**

Technology Training Services is dedicated to improving employee job performance at all levels by exceeding expectations in the areas of technology training, instructional design, and customer support.

**Mission**

Technology Training Services provides leadership and support to the Maricopa Community College District as the District implements new technologies that address challenging administrative needs and educational standards. We design, develop, and deliver the highest quality in-service technology training, materials, and support to all of the employees of the Maricopa Community Colleges.

To fulfill this mission, we:

- Provide responsive and accessible technology training on a variety of administrative systems and desktop applications.
- Design and develop comprehensive training and reference materials.
- Provide technology training support in a variety of ways including telephone helplines, one-on-one assistance, online help, troubleshooting, consultation, and referral services.
- Support the colleges' technology training efforts by delivering on-site technology training, delivering Train-the-Trainer sessions, and providing training materials.
- Provide leadership and support to the teams implementing new technologies and administrative systems within the organization.
- Cultivate positive partnerships with our colleges to meet and exceed their training needs and expectations.
- Collaborate with organizational teams to develop strategies to meet future technology training needs.
- Chair and host the Regional Training Committee (RTC) to collaboratively develop training strategies, maintain technology training consistency, and overcome the challenging technology training needs throughout the District.
- Expand and update our knowledge and skills in the areas of technology, training, and instructional design.

# Table of Contents

# Class Description & Objectives

## Class Description

This eight-hour training session provides employees with tools and resources for *effective* training delivery. The focus is on instructional strategies that foster a deep approach to learning. The goal of the training is to have you deliver more *effective* training by applying instructional design principles throughout your own training. A desired outcome is to have you feel more *confident* delivering effective training.

## Learning Objectives

1. Define learning objectives and explain their importance.
2. Construct two well-written learning objectives for your training session.
3. Provide relevant practice activities for your learning objectives.
4. Define sequence and explain how it impacts your training.
5. Explain the "WIFM?" concept and its importance to training.
6. Use the Information Processing Model to explain how the brain processes information.
7. Describe a deep approach to learning.
8. Describe instructional strategies and activities that foster a deep approach to learning.
9. Describe different learning styles and how they impact your training.
10. Use Gagné's Nine Events of Instruction to deliver training effectively.
11. Describe essential trainer elements and explain their importance:
    - ***** Knowledge, and transfer, of subject matter
    - ***** Positive first impression
    - ***** Excellent communication & presentation skills
    - ***** Good Introduction
12. Define a Dry Run and explain its purpose and importance.
13. Explain the importance of evaluation.
14. Differentiate between formative, summative, and impact evaluation, and determine which one to use when.
15. Develop a Training Plan for your training session.

# Terminology

Listed below are some terms and concepts that will be used throughout this training. They will be discussed in more detail at appropriate times in the training.

### Training

Training is instruction provided for the purpose of improving performance on the present job.[1] The goal of training is to have participants acquire new skills, knowledge, or attitude. [2]

### Competency-based Instruction

Competency-based instruction teaches training participants to *accomplish something*.[3]

### Objective

An objective is a specific statement of the skill that training participants are to acquire from the training. You should always be able to assess, or measure, your objectives.[4]

### Brain and Information Processes

This relates to how the brain manages information and the processes that make training effective, long-term, and transferable.

### Instructional Strategies

Instructional strategies are the various methods and activities used to help the training participants acquire the learning objectives.[5] This is how you [the trainer] transfer your knowledge to your training participants.

### Practice Makes Permanent!

"Practice doesn't make perfect; it makes permanent."[6] We learn something the way we practice it. If we practice something correctly, than yes, eventually we learn it "perfectly". If we practice something incorrectly, then eventually we learn it incorrectly - not perfectly. Our brains don't know the difference.

### Evaluation

Evaluation is the ongoing process of improving training and materials based on evaluations conducted during training, after training, and following training.[7]

### WIFM

**"W**hat's **I**n **I**t **F**or **M**e?" is the biggest motivator for most human activity.[8] You must answer this question at the beginning of your training session --- and continue to answer it *throughout* your training session – to get your participants engaged and to keep them engaged so they learn and acquire the objectives.

# Objectives

**Objectives are the skills you want your training participants to acquire from the training.** Objectives drive your training**.** Good instructional objectives are the foundation for competency-based instruction.

**Competency-Based Instruction**

Competency-based instruction teaches training participants to *accomplish something*.[9] It's not merely "participating" or "discussing" an issue; it's solving it or reconstructing it, or analyzing it, or defining it, or categorizing it, etc. CBI is actually ***doing*** something.

**Audience**

An important aspect of your objectives [and your training] is your audience.

Who is your training audience? Keep your audience in mind at all times!

**The Key – Specific, Measurable Verbs**

Robert Mager's central concept of a well-written objective is that the desired behavior should be specific and measurable.[10]

The key to writing good objectives is to use specific, *measurable* verbs when describing the desired outcome.[11]

To find out whether or not your training participants have acquired the desired behavior, you'll have to measure, or test, their new knowledge and skills. You can only do this properly if you know what you're checking for. Your objectives have to clearly state the desired behavior. You'll go back to those objectives to find out whether or not they "got it."

**The Problem – Vague Verbs**

The problem with bad objectives is using vague verbs. Vague verbs are open to too many interpretations.

For example, the verb "know" is open to too many interpretations by different people. What do you mean when you say you want a training participant to "know" something? How will you measure that your participant "knows" it? Do you want the participant to be able to *recite* a poem, to *solve* an equation, or to *construct* something? Just to say that you want the participant to "know" something isn't enough.[12]

**Best Bet – Can you *measure* it?**

Your best bet in selecting the right words for your objectives is to ask yourself whether or not you can accurately *measure* that behavior.

## Objectives – Bad vs. Good

| **Vague Verbs**<br>**Open to Misinterpretation**<br>**(Bad!) ☹** | **Specific Verbs**<br>***Can be Measured!***<br>**(Good!) ☺** |
|---|---|
| Know | Define |
| Understand | Differentiate |
| Appreciate | Evaluate |
| Grasp the significance of | Explain |
| Learn how | Solve |
| Believe | Construct |
| Be aware of | Write |
| Value | Critique |
| Identify with | Interpret |
| Think about | Calculate |
| Be familiar with | Categorize |
| Take in | Paraphrase |
| Figure out | Analyze |
| Get the picture | Demonstrate |
| Absorb | Compare and Contrast |

You need to make sure your objectives are clear, concise, and measurable.

You want to be on the "right" side of this table! ☺

## Objectives Exercise

Work with a partner, or on your own, to differentiate between "good" and "bad" objectives.

Put a Y [Yes] in the blank next to the objectives that are well-written.

Put an N [No] in the blank next to the objectives that are not well-written.

For those objectives that are not well-written, discuss why they are not well-written, and rewrite them in a better way.

_____ Learn how to use the new loading equipment.

_____ Differentiate between a word processing application and a desktop publishing application.

_____ Compare and contrast two of Shakespeare's plays.

_____ Understand competency-based instruction.

_____ Using DreamWeaver, create and post two working pages to the class website.

_____ Appreciate instructional design.

_____ Using Outlook, compose, edit, save, and send an electronic mail message.

_____ Figure out how to give a student a refund.

## Activities / Practice

An activity is a learning experience in which trainees participate for the purpose of acquiring the objective. Practice, activities, and feedback are critical elements of effective training and should be planned carefully.

**Instructional Purpose**

Activities must have an instructional purpose. Make sure your activities are directly related to your objectives. Your activities are the vehicles for acquiring the objectives. Create meaningful activities. Don't create busy-work! Everything you do, and that your participants do, should be for the purpose of acquiring the learning objectives.

**Audience**

Keep your audience in mind at all times. Are your activities appropriate for your audience?

**Practice Makes Permanent!**

"Practice doesn't make perfect; it makes permanent."[13] We learn something the way we practice it. If we practice something *correctly*, then we have the potential to become "perfect." If we practice something incorrectly, our brain doesn't know the difference and we learn it incorrectly. The brain connections are made during the practice.

**Instructional Alignment – A Means to an End**

The *objectives* represent the *ends* of instruction while *activities* represent the *means* to those ends.[14] This is instructional alignment.

| End (Objective) | Means (Activity) |
|---|---|
| Construct a well-written learning objective. | Differentiate between measurable and vague verbs. |
| Parallel park correctly. | Practice parallel parking. |
| Effectively answer questions in training. | Perform a dry run for training and practice answering questions correctly. |
| Create a registration database. | Participate in an Access training class. |
| Describe how the brain processes information. | Label the Information Processing diagram. |

## Activity Examples

Activities are learning experiences in which trainees participate for the purpose of acquiring the learning objectives. Activities must have an instructional purpose. There are many practice and feedback activities from which to choose. Think about some of these and add your own to the list:

- hands-on activities
- collaborative learning activities
- computer simulations
- role-playing
- case studies and scenarios
- instructional games
- practical experiences (internships, job-shadowing)
- worksheets
- flashcards
- study guides
- reading and writing activities
- podcasts
- online activities:
    - games
    - chats
    - blogs
    - bulletin boards)
    - wikis (a web site that allows visitors to make changes, contributions, or corrections)
- webinars
- audio clips
- videos
- mobile apps
- polling
- storytelling: oral, digital, graphic

**Instructional Alignment and Purpose – Practice Makes Permanent!**

Activities must have an instructional purpose. They are the vehicles for learning and acquiring the objectives. Practice makes permanent!

## Objectives vs. Activities Exercise

Determine whether the following statements are objectives or activities.

Enter an O for Objective or an A for Activity for each statement.

**Objective**: the *skill* the training participants are to acquire from the training. (What will they be able *to do* after your training?)

**Activity**: a learning *experience* in which trainees participate for the purpose of acquiring the objective. (Practice)

_____ Attend the Technology in Education conference.

_____ Differentiate between a database and a spreadsheet.

_____ Practice parallel parking.

_____ Create a 3-column table in Word.

_____ Read online articles regarding instructional design.

_____ Create a design blueprint for your training project.

_____ Conduct a needs analysis using the ASTD needs analysis 6-step process.

_____ Create a 4-page newsletter using PageMaker.

_____ Participate in the Digital Days workshops.

_____ Edit a digital image using PhotoShop.

_____ Import Excel information into an Access database.

_____ Define your role as a supervisor related to Health, Safety & Environmental issues.

_____ Brainstorm ideas on how to improve customer service.

_____ Identify the 5 standards of High Impact Customer Service.

_____ Contribute your thoughts regarding e-learning to the E-Learning Blog.

_____ Discuss the importance of objectives.

_____ Identify the different phases of ADDIE and provide examples of the activities that happen in each phase.

## Objectives and Activities Exercise

Construct two well-written objectives for your training project, and provide a relevant activity for each objective. Remember to keep your audience in mind.

**Note:** You can have more than one activity for each objective.

Objective:

_____

Activity/Practice:

_____

Objective:

_____

Activity/Practice:

_____

# Sequence – Instructional Order

Now that you have your objectives, it's extremely important that you pay attention to the sequence, the *order*, of your objectives.

**Building Blocks**

The sequencing of your instruction is extremely important. You have to make sure the building blocks for your instruction are correctly in place. Be aware of the knowledge and skills training participants need to know before learning something new.

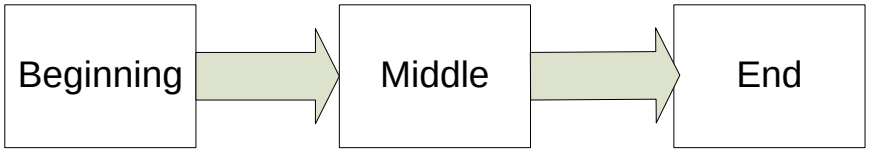
Here are some examples:

- Before learning how to format text in a word processing document, users have to know how to select the text first.
- Before learning how to add two digit numbers, students need to know how to add single digits first.
- Before learning to run a report in Access, training participants must first be able to perform queries.
- Before learning how to construct well-written objectives, training participants must first be able to differentiate between vague and measurable verbs. They should also be able to differentiate between badly-written objectives and well-written objectives.

**The Sequence**

The sequence (order) of information depends on the subject matter at hand. Typically, information goes in sequence from beginning to end when a process is being taught, and from easy to hard when a concept is being taught. A common exception to this is to begin with an overview lesson that presents the big picture before going into the details.

**Building Blocks**




**Sequence**

## Sequence Outline Exercise

Based on your objectives, develop a sequential content outline for your training project. What do your training participants need to learn first, next, last?


**Building Blocks**

**Sequence**

1. Start with your objectives.
2. Write them down in sequential order.
3. Leave plenty of space in between them.
4. Think about the building blocks that need to be in place.
5. Before your objectives, write in any building blocks needed. After your objective, write down any next steps that should follow that objective.

You may realize you need to re-sequence your objectives, rewrite your objectives, or add new objectives altogether!


# What's In It For Me?

**"W**hat's **I**n **I**t **F**or **M**e?" is the preeminent motivator for most human activity.[15]

You have to answer that question right from the start, and throughout your training, to keep your participants interested, involved, and engaged.

## Learning Theories & Instructional Strategies

Learning theories and instructional strategies are the tools for transferring knowledge. They are the tools the trainer uses to help participants learn new information.

Learning theories are just that – theories on how people learn. Instructional strategies are the various methods used to help people learn. Together, these are the keys to helping training participants acquire the learning objectives.

Below is a list, and a brief description, of important learning theories and instructional strategies that will be discussed in more detail in the following sections.

- **Brain and Information Processes**

  This relates to how the brain keeps and manages information and the processes that can make training effective, long-term, and transferable.

- **Deep Approach Learning**

  This relates to a learning of *understanding* ideas and concepts for yourself and applying these ideas and concepts to new situations.

- **Learning Styles and Instructional Strategies**

  This relates to the preferred modes of learning for different people and the instructional strategies and activities most effective for the different styles.

- **Instructional Events**

  This relates to the sequence of events that should take place during each training session for effective instruction. Think of these events as a "training recipe."

- **WIFM?**

  **"W**hat's **I**n **I**t **F**or **M**e?" is the preeminent motivator for most human activity.[16] You have to answer that question for every objective.

## The 3 Brain Decision Factors[17] - Relevancy!

**Attention**

There is no way that the brain can pay conscious attention to all the sensory information that is constantly bombarding it. It filters out information that is not relevant. Approximately 99% of all information entering through the senses is immediately dropped. *The brain is more like a colander than it is a sponge!*

Two factors strongly influence whether or not the brain pays attention to new information:

1. Whether or not the information has meaning.
2. Whether or not the information has an emotional component or an emotional hook.

**Meaning**

The brain is constantly attempting to determine what is meaningful in what it experiences. Every encounter with something new requires the brain to fit the new information into an existing memory category (or network of neurons). The brain tries to fit the new information into its existing schema – mental models of experience. If it can't, the information will have no meaning; it will have no relevancy.

Two Options to make information relevant to training participants:

1. Find the experience they've had, and relate the new information to it. OR
2. Create the experience with them. (Give meaning to the new information.)

**Emotion**

Brains are emotional first, rational second. Emotion is a double-edged sword. At times it can impede learning, other times it can enhance it. Emotion can impede learning when it perceives a situation to be threatening. When the brain is threatened, the fight-or-flight stress response is activated, and emotion takes over rationale. On the other hand, emotion can enhance learning when it motivates and engages the learner.

Emotional factors to enhance learning:

1. The learning environment must be physically and psychologically safe (non-threatening).
2. Use an emotional component to engage and motivate learners.

**Summary**

In a nutshell, attention, meaning, and emotion determine what the brain keeps.

## Brain Decision Exercise

Keep in mind that brains are emotional first, rational second. Because of this, the brain works more like a colander than a sponge. The brain only keeps what is *meaningful* to it.[18]


Colander

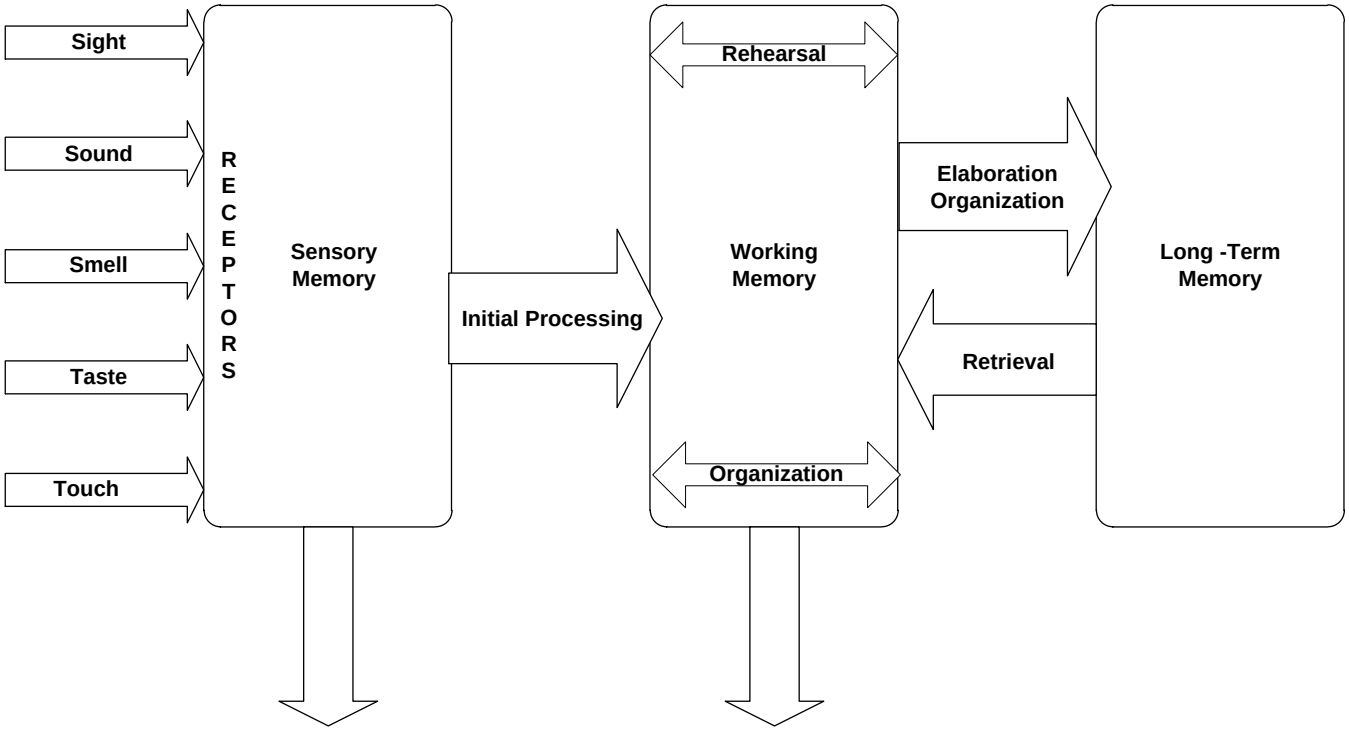
Sponge

With a partner, discuss the three factors that influence what the brain keeps.

How do these factors apply to a training setting?

## Information Processing Model

Once the brain decides to keep information, how does it process it? Atkinson and Shiffrin's Information Processing Model proposes that information is processed and stored in three ways: Sensory Memory, Working Memory, and Long-Term Memory.[19]






**Note:** The written descriptions of each of these stages are on the next page.

# Information Processing Model Description[20]

**Sensory Memory**

Sensory Memory takes a mental snapshot of raw stimuli corresponding to sounds, sights, smells or tastes. This snapshot only lasts for 3-5 seconds. Unless this snapshot is transferred to working memory for actual processing, it is lost. The three brain decision factors for retaining information in Sensory Memory are: Attention, Meaning, Emotion.

**Working Memory – Organization and Rehearsal**

Working Memory relates to what we are thinking at any given moment. This memory lasts for about 15-20 seconds without rehearsal or repetition. Recent research suggests the number of units that can be processed at any one time is 5, plus or minus 2.

The longer the information stays in Working Memory, the better the chances of moving the information from Working Memory to Long Term Memory. Two major concepts for retaining information in Working Memory are organization and rehearsal (repetition).

- **Organization** of new information is easier to remember than separate bits and pieces.[21] Chunking is a form of organization. It is grouping pieces of data into meaningful "bite-sized" units. Chunking prevents information overload.

- **Rehearsal** is the process of information in working memory for longer than a few seconds and working with it in such a way as to insure its transfer to long-term memory. There are two types of Rehearsal/Repetition strategies:

  Rote: deliberate, continuous repetition of material in the same form in which it entered working memory. Examples include typing, driving, instrument playing.

  Elaborative: integrating and repeating information, giving it some kind of meaning, creating chunks of reminders. Examples include attaching relevancy to the learning, applying the learning to real-life situations, connecting to prior learning.

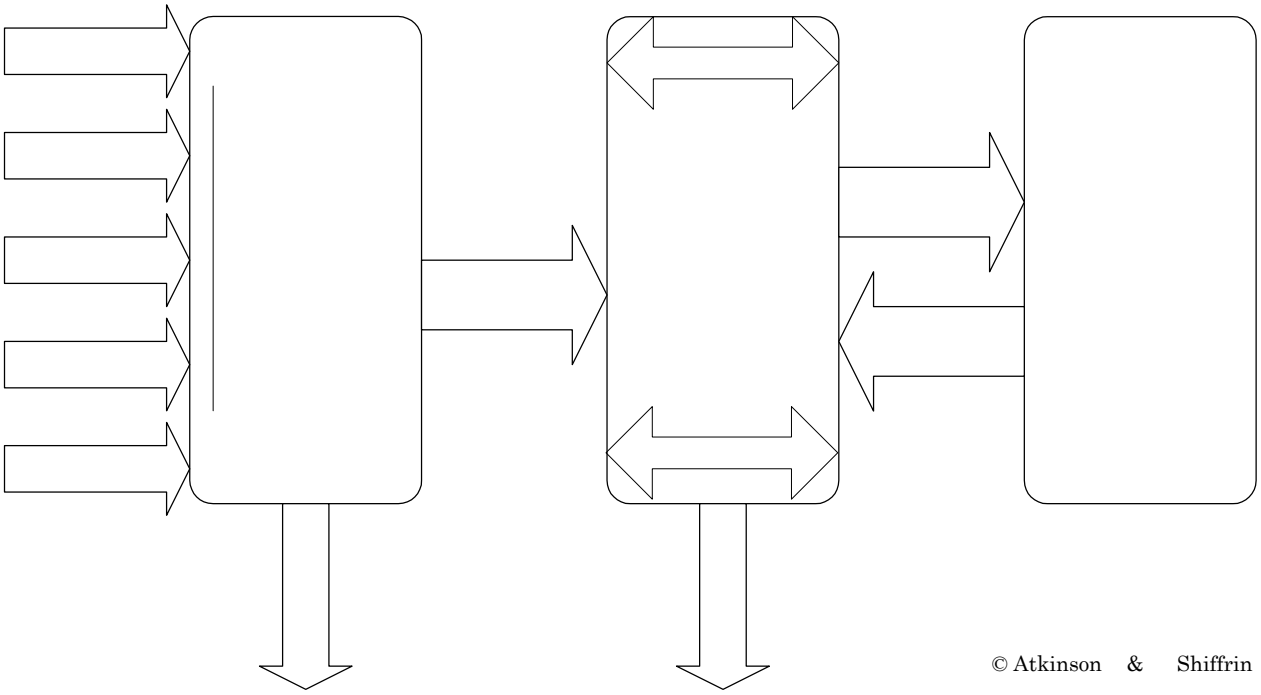
**Long-Term Memory – Elaboration and Organization**

Long-Term Memory stores information for future reference. This is thought to have unlimited capacity and duration. The two processes most likely to move information to Long-Term Memory are elaboration and organization.

- **Elaboration** is drawing on already existing knowledge to build an understanding of new information. It's giving the new information meaning. If there is no existing knowledge relevant to the new information, it is up to you to give the new information meaning.
- **Organization** helps the brain remember new information. Drawing a chart or graph helps organize new information. Grouping new information with old information helps the brain retrieve it better.

## Information Processing Model Exercise

In your own words, label the Information Processing Model below:



© Atkinson & Shiffrin ( 1968 )

- Discuss the 3 factors that help the brain decide what to keep in Sensory Memory and why information gets "dropped." Provide some examples.

- Describe and discuss the three ways of processing and storing information. (The 3 memories) What activities take place at each stage?

- What is chunking? What role does it play in this process?

- Describe and discuss the two major concepts for retaining information in Working Memory.

- Describe and discuss the 2 processes that move information from Working Memory to Long-Term Memory. Provide some examples.

# Deep Approach to Learning

**Deep Approach vs Surface Approach**[22]

A deep approach to learning is learning for *understanding*. Its intention is for you to understand ideas for yourself and to apply these ideas to new situations. Deep approach learners concentrate on analyzing new situations and determining what knowledge and skills should be applied. They connect new and old knowledge to new situations.

A surface approach to learning is "superficial" learning. In a surface approach to learning, learners are usually memorizing facts and procedures to meet course requirements. They don't concentrate on a purpose. They treat information as unrelated bits of knowledge. There is no connection between the items learned and new situations. Learners find it difficult to make sense of new ideas.

| Surface Approach to Learning | Deep Approach to Learning |
|---|---|
| Cope with course requirements | Understand ideas for yourself |
| Treat information as unrelated bits of knowledge | Relate ideas to previous knowledge and experience |
| Memorize facts and procedures | Look for patterns and underlying principles |
| Find it difficult to make sense of new ideas | Apply knowledge to new situations |
| Study without reflecting on a purpose | Analyze situations and apply new skills |

**Trainer's Goal – to be on the "Right Side!"**

As a trainer, your goal should always be to exercise a deep approach to learning. You always want to be on the "right side" of the table above. You want your participants to apply what they learn in your training classes to their situations in the workplace. Your participants should be able to analyze real world situations and apply their new knowledge, their new learning, to new experiences and new situations.

**How do you get there?**

You can foster a deep approach to learning in your training environments in a variety of ways. We've already discussed one method - by using what you know about the way the brain processes information. Other ways include applying a variety of instructional strategies and appealing to a wide range of learning styles.

## Instructional Strategies

For a deep approach to learning, it is important to use instructional strategies that match how the brain learns best. Instructional strategies are the various methods used to help participants acquire the learning objectives."[23]

**Chunking**

Chunking is presenting and organizing information in small, meaningful units. Chunking is training in "bite-sized" units. It helps the brain organize information and it prevents information overload.

**Elaboration and Sequence**

Elaboration is integrating information into previous knowledge, or giving it new meaning. The new meaning should be relevant to real life. Elaboration also includes sequencing instruction so that the simplest version of the task is taught first. Instruction then moves on to more difficult concepts in sequential order.[24]

**Reciprocal Teaching**

Reciprocal/Peer Teaching gives training participants the opportunity to teach each other. There is no better motivation to learn something than having to know it to teach it!

**Visuals and Graphic Organizers**

Visuals and Graphic Organizers are used to create a visual framework for representing and organizing concepts. Examples include flowcharts, diagrams, t-frames, tables, etc.

**Problem-based Learning – Case Studies and Scenarios**

Problem-based learning activities, such as case studies and scenarios, are rich sources of both learning and motivation. They have the potential for integrating multiple concepts.

**Para-Phrasing**

Explaining, or restating, concepts and ideas in your own words.

**Analogies**

Analogies point out similarities between new concepts and other previously-known material.

**Hands-on Activities**

*Relevant* hands-on activities allow for "learning by doing." Training participants actually do what is expected of them in regard to the learning objectives.

# Learning Styles

Learning styles theory emphasizes that individuals have a *preference* in the way they perceive and process information. Research demonstrates that this is a result of heredity, upbringing, and current environmental demands.[25] These different *preferences* are broadly referred to as learning styles.

**Learning Styles[26]**

**Print** the reader or writer who learns well from traditional texts and written exercises.

**Visual** the observer who likes to view films, videos, exhibits, charts, flowcharts, graphs.

**Aural** the listener who enjoys lectures and learns well from audio clips and narrations.

**Interactive** the talker who learns best from discussions and question-and-answer sessions.

**Tactile** the toucher/handler who likes hands-on activities, model building, and sketching.

**Kinesthetic** the mover who likes role plays, physical games, and activities.

**Olfactory** the smeller/taster who associates learning with smells and tastes.

**Retention Statistics[27]**

The average adult remembers:

10% of what is read.

20% of what is heard.

30% of what is seen.

50% of what is heard *and* seen.

70% of what is said.

90% of what is said *and* done.

Many learners aren't aware of their learning styles. What they *do* know is which learning *activities* they usually like or dislike. Whatever our preferences, we also learn through *all* our senses – just not as efficiently.

**Multisensory Training**

As a trainer, it is important to create activities that include a variety of sensory activities. Multisensory training increases the likelihood of appealing to a wider variety of learning styles. Multisensory training also helps learners reinforce skills or knowledge already acquired through their preferred learning style.

## Instructional Strategies & Learning Styles Example

Think about the instructional strategies and activities best-suited for acquiring your training objectives. Make sure your instructional strategies address different learning styles. For each objective, list the instructional strategy (ies) and/or the activity (ies) you will use to deliver your content. Remember to keep your audience in mind. For example:

| **Objective (the skill they are to acquire from training)** | **Instructional Strategies and Activities [and learning styles]** |
|---|---|
| Use the Information Processing Model to explain how the brain processes information. | WIFM! - Knowing how the brain works helps you determine what instructional strategies and activities to use in training.<br><br>Chunking /Lecture (Aural Style) - Train everything in small sections; organize information in bite-sized chunks<br><br>Prior Knowledge Recall - Discuss briefly the 3 factors the brain uses to decide whether or not it keeps info: Attention, Emotion, Meaning<br><br>Visuals, and Graphic Organizers (Visual Style) - Review the IPM graphic in sections<br><br>Hands-on Activities (Print and Tactile Styles) Label the IPM diagram<br><br>Reciprocal teaching (Interactive and Kinesthetic Styles) - Discuss questions in group; apply to own projects. |
| Construct a well-written objective for your training session. | WIFM! – Objectives drive your training. Everything you do in your training session needs to be relevant to your objectives.<br><br>Chunking/Lecture<br>(Aural) - Train everything in sections.<br><br>Prior Knowledge Recall – Define objective. Review "means to an end" – activities to objectives.<br><br>Comparison and Graphic Organizers (Tables) (Visual) - Vague vs. Specific verbs<br><br>Differentiate between good & bad objectives.<br>Hands-on Activity (Tactile and Print) - Write well-written objective for your own training session. |

## Instructional Strategies & Learning Styles Exercise

Think about the instructional strategies and activities best-suited for acquiring your training objectives. Make sure your instructional strategies address different learning styles. For each objective, list the instructional strategy (ies) and/or the activity (ies) you will use to deliver your content. Remember to keep your audience in mind.

| **Objective (the skill they are to acquire from training)** | **Instructional Strategies and Activities [and learning styles]** |
|---|---|
| | |
| | |

# Gagné's Nine Events of Instruction[28]

"Gagné's 9 Events of Instruction" is a "recipe" for the effective delivery of training. It's a guideline that allows for your own personal touch to make training effective for you and your training participants. These events are actually a summary of everything we've discussed so far!

Keep in mind that this "recipe" should be followed for ***each*** of your objectives.

1. **Gain attention.**

   Answer the WIFM! Explain the relevancy of the training. After this, you can gain added attention by storytelling, using demonstrations, presenting a problem to be solved, asking a thought-provoking question, presenting an interesting fact or statistic, etc. If you're limited on time – the best way to gain attention is the WIFM.

2. **Inform training participant of learning objective.**

   State the learning objective. Explain its relevancy – the "why" of it. This allows participants to organize their thoughts around what they are about to see, hear, and do. Participants start to attach their *own* relevancy (meaning) to the training.

3. **Stimulate recall of prior knowledge. OR Create meaning for new information.**

   Review prior knowledge and experience that is relevant to the current training. This facilitates the learning process. It is easier for learners to store information in long-term memory when there are links to personal experiences and knowledge.

   Provide a framework that helps learning and remembering. Stimulate the recall of prior knowledge by asking questions about previous experiences, asking participants to paraphrase a previous concept, and by providing relevant examples of previous learning that also apply to the new concept.

   If there is no prior knowledge of the new concept, define and explain the new concept – and give it *meaning*; give it *relevancy*. Put it in context with what's already been learned.

4. **Present the content.**

   Chunk the information to avoid memory overload. Keep in mind the importance of logical sequencing. Go from easy to hard, and from beginning to end. Blend the new information with prior learning to aid in information recall. Content should be explained then demonstrated. Appeal to as many different learning styles as possible by using a variety of media including text, graphics, audio, video, etc.

   **Note:** If using media, use it appropriately! It must have an instructional purpose!

## Instructional Events Continued

5. **Provide guidance for learning.**

   Apply instructional strategies to facilitate learning such as chunking information, using relevant examples, relating the content to real-life situations, using scenarios to apply the new knowledge, using graphics to represent information in different formats, using analogies to bring out the similarities between old and new knowledge, etc.

6. **Elicit performance - Practice.**

   Have the training participants do something relevant with the newly acquired skills. This practice allows the participants to confirm their correct understanding. Practice allows for repetition that further increases the likelihood of retention. Practice activities can take all kinds of forms including hands-on activities, paraphrasing the new concepts, peer-teaching, writing, etc. "Practice Makes Permanent!"

7. **Provide feedback**.

   Providing and obtaining feedback is the ability to give and to receive, and to accept, evaluative or corrective information about an action, event, or process. Throughout the training session, you should observe and analyze training participants' behaviors and provide specific and immediate feedback.

   Be sure to validate correct behavior and provide guidance to rectify incorrect behaviors. Keep the feedback positive as the goal is to reinforce their drive to perform better, not to criticize. It is important to give positive reinforcement that is focused and accurate.

8. **Assess/Measure performance. Did they get it?**

   Throughout your training session, determine whether or not the learning objectives are being acquired. Assessment can take many different forms including activities, demonstrations, questions, presentations, peer-teaching, paraphrasing, etc.

9. **Enhance retention and transfer of learning. Help them apply it to the real world.**

   Transfer of learning is the ability to apply prior learning in a new situation. To accomplish this, relate the content and the objective to real-life situations or to work-related problems. Provide additional practice under a variety of conditions. Review the training module. Provide participants with references, templates, job-aids, online materials, quick-reference cards, tool kits, etc. Enhancing retention and transferring knowledge should be happening throughout the training.

Many people in the training field think that applying Gagné's nine-step model to any training session is the single best way to ensure an effective learning session.[29]

## Gagné's Training Recipe / Training Delivery Example

Think about one of your learning objectives for your training session. Think about the instructional strategies and activities you will incorporate into your training session to foster a deep approach to learning and to appeal to a variety of learning styles.

Use Gagné's instructional model, the "training recipe", to document the training session for your training objective. Here is an example:

**Objective:** Construct a well-written objective for your training session.

| **Instructional Event (Recipe Component)** | **Instructional Strategies/Activities** |
|---|---|
| 1. Attention | WIFM (What's in it for me) - To be a good trainer, you have to have good objectives. Participants need to know why they're here. The objective is what they'll be able *to do* when they leave your training.<br>Attention, Emotion, Meaning<br>Present ID Fact - Learning objectives drive your instruction and everything you do in your training session. |
| 2. Objective | State the objective. Keep it simple! - To construct well-written objectives for their training session.<br>Explain the "why" of it. -– Everything you do in your training needs to be centered around your objectives. |
| 3. Prior Knowledge or New meaning | Information Recall - Review definition of objective; review competency-based instruction |
| 4. Content | Move through content from simple to difficult – logical sequencing. – chunking – explain the "why" |
| 5. Guidance | Compare and Contrast -<br>Bad and Good Verbs and Objectives and Activities<br>Relevant Examples - Provide examples throughout.<br>Graphic Organizer (tables) |
| 6. Practice | Activities - Rewrite bad objectives into well-written ones.<br>Differentiate between objectives and activities.<br>Construct a well-written objective. |

## Training Delivery Example Continued

| Instructional Event (Recipe Component) | Instructional Strategies/Activities |
|---|---|
| 7. Feedback | Validate learning - Review and discuss objectives. Ask for participant feedback and provide corrections and "tweaking" if needed.<br>Questions - Ask and answer questions. |
| 8. Assessment | The hands-on activity : Construct well-written objectives for own training projects – is the assessment. - Ask participants to share - check and "tweak" it if necessary. |
| 9. Retention & Transfer | Applicability (Elaboration) – the objectives that participants write are for their own training sessions.<br>Provide training manual and references.<br>Provide resources.<br>Provide "driving" QRC.<br>Be available for consultation.<br>Follow up with participants on-the-job at a later date. |

## Gagné's Training Recipe / Training Delivery Exercise

**Objective:** _____

| **Event of Instruction (Recipe Component)** | **Instructional Strategies and Activities** |
|---|---|
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******* Follow this instructional recipe for ***<u>each</u>*** of your objectives.*******

# Effective Trainers

One of the most important factors in a training session is the trainer! *Good trainers can make a poorly-developed program work well and they can make a well-developed program work great . . . . bad trainers can't make either one work.*[30]

If the training is not successful, there are a lot of negative consequences. A lot of time, money, effort, and work is wasted. It's in everyone's best interest to make sure the training is a success. As the trainer, it is your job to make it happen! ☺

**Effective Training Components**

- *Transfer of knowledge of the subject matter!*
- Positive learning environment
- Engaging instructional strategies
- Involvement skills
- Attention to learning styles
- Relevant interactive instructional events
- Formative evaluation
- Summative evaluation

**Training Environment Guidelines**[31]

- Respect different points of view.
- Respect the experience of the audience. Increasing or maintaining self-esteem is a strong motivator for engaging in learning.
- Appeal to a range of learning styles. Some people learn best when they *listen* to new material; others learn best when they *see* new material in writing; others learn best when they *do* something with the new material. Everyone learns with multi-sensory training!
- Create a comfortable space. The learning environment needs to be physically and psychologically comfortable (non-threatening).

**Essential Trainer Elements**

- Knowledge of subject matter
- Good introduction
- Positive first impression
- Excellent communication and presentation skills

## Positive First Impression

Making a positive first impression is extremely important in training. It can lend you credibility, confidence, and a positive base with which to start training.

It takes just a quick glance, maybe three seconds, for someone to evaluate you when you meet for the first time. In this short time, the other person forms an opinion about you based on your appearance, body language, demeanor, mannerisms, and your dress.

**Useful Tips**[32]

- Smile! There's nothing like a smile to create a good first impression. A warm and confident smile will put both you and the other person at ease.
- Be Positive! Your attitude shows through in everything you do. Maintain an upbeat manner, focus on the positive, and smile.
- Be Courteous! It goes without saying that good manners and courteous behavior help make a good first impression. Anything less can ruin your one chance!

**Five Key Questions**[33]

- What do I LOOK like?

  Always dress professionally. Be aware of facial expressions and body language.

- What do I SOUND like?

  Vary voice rate. Control the loudness. Use inflections. Sharpen your articulation.

- What do I SMELL like?

  Do not give off any body odors! Do not wear perfumes or colognes.

- What do I SAY?

  Be concise. Avoid fillers, qualifiers, annoying phrases. Avoid um's and uh's. Be truthful.

  Avoid using the words: but, however, don't, anyway.

- How well do I LISTEN?

  Be quiet. Pay attention. Don't interrupt. Check message. Give feedback.

**No Second Chance**

You never get a second chance to make a first impression. In addition, it is extremely difficult to overcome a negative first impression. Make the best of your first impression!

## Positive First Impression Exercise

Minute Paper: What will you do to make a positive first impression during the first four minutes of your training session?

## Communication and Presentation Skills

One of the most important elements for an effective trainer is excellent communication skills. Without excellent communication skills, the trainer will not be able to accomplish transfer of knowledge to the participants.

In any communication, *how* you say something is just as important as *what* you say. Experts have observed that the techniques used to communicate information often determine whether or not the information is received.[34]

**Verbal Communication Suggestions**

- Speak clearly and pay attention to the sound of your voice. It's all in the *way* you say it!

  Your projection – the pitch, tone, and volume of your voice – is crucial for effective delivery. Vary the pitch, tone, and volume to draw emphasis to key points.

- Communicate on a personal level with your participants. Participants should feel positive about being involved in your training.

- Emphasize key points through relevant examples, questioning techniques, appropriate application activities, and the use of visuals.

- Make logical transitions between modules. If transitions are too abrupt, participants may get confused and lose interest or become frustrated.

**Nonverbal Communication Suggestions**

- Dress professionally. First impression, best impression.

- Use and maintain eye contact.

- Effectively use positive body language, gestures, and facial expressions.

**Presentation Suggestions**

- Be prepared!

- Respect your audience. Be flexible to meet their needs.

- Don't pace or express annoying habits. Don't stand or walk in front of the screen.

- Use technology effectively and appropriately.

**Note:** Practice! You have to practice these suggestions to get good at them!

## Dry-Run – A Training Dress Rehearsal!

A "Dry-Run" is a training dress rehearsal of your training session. The purpose of a dry-run is ***to make you a better trainer***! Prepare for a dry-run as if it were the real thing. "Practice Makes Permanent!" Your Dry-Run should not be the first time you're running through your material! A dry-run is invaluable for first-time trainers and for first-time content. A dry-run is extremely useful for testing the following:

- Relevancy of objectives
  - Are these the correct objectives for this training need – and for this audience?
  - Are the objectives well-written and easy to understand?
- Timing of a session
  - How long does each module take?
  - How long does the entire training session take?
  - When should I break?
- Sequence of content
  - Are the modules in a logical order?
  - Is the sequence from easy to hard or from beginning to end?
  - Are there any "bumps" that don't feel right? If so, the sequence is off. Change it.
- Articulation of content
  - Did I explain it right? Did I make sense of it? Did I provide the WIFM?
  - Was my speech articulate? (no umms, no ahs, no annoying phrases)
- Applicability of instructional strategies
  - Did I use the right method to explain things? (chunking, examples, analogies, visuals)
  - Were the practice activities relevant?
- Training Materials
  - Are the training materials relevant, easy to use, and helpful?
- Assessment
  - Was I able to measure whether or not the participants acquired the objectives?
  - Do I need more or less formative assessment during the session?

Your dry-run may surface things that need to be changed or it may validate that your training and materials are solid and ready to go. **A dry-run is very worth your time!**

## Dry-Run Exercise

Schedule a dry-run with people you trust to provide *honest*, constructive feedback.

In your Dry-Run, be sure to incorporate the topics discussed throughout this training class.

Who will you invite to participate in your Dry-Run?

When will you schedule your Dry-run?

Where will you schedule your Dry-Run?

How will you prepare for your Dry-Run?

What did you find out during your Dry-Run?

# Evaluation/Assessment

Evaluation is the ongoing process of measuring and improving instruction and materials based on evaluations conducted during, following, and after training. [35]

**Formative Evaluation vs Summative Evaluation vs. Impact Evaluation**

Formative evaluation is a method of judging the worth of a program while the training is in process. It measures whether or not the learning objectives are being achieved. Formative evaluation assesses activities that are forming or are happening. Formative evaluation focuses on the *process* of the training.[36] *Am I doing it right?*

Summative evaluation is a method of judging the worth of a program at the end of the training. It measures whether or not the learning objectives were achieved. Summative evaluation assesses the completed activities. Summative evaluation focuses on the *outcome* of the training. [37] *Did they get it?*

Impact evaluation is a method of judging the worth of a program after the training program has been implemented. It measures whether or not the training program had a positive impact. The information gathered from evaluations influences subsequent decisions about the program.[38] *Was the program worthy? What now?*

| Formative Evaluation | Summative Evaluation | Impact Evaluation |
|---|---|---|
| During training | Following training | After training |
| Ongoing | One-time shot | Dynamic process |
| Focus in on process | Focus is on outcome | Focus is on impact |
| Goal is to improve the training | Goal is to prove the learning objectives | Goal is to assess the program impact |
| Training is modified "on the spot" to address current situation. | Training is revised "after the fact" to better demonstrate the objectives. | "Future" training is influenced based on informed decisions from evaluation results. |

# Formative Evaluation

Formative evaluation takes place ***during*** a training session. Formative evaluations are used to revise and improve the training while the session is still in process.[39] Are you, as the trainer, doing what you're supposed to be doing?

Formative evaluations request feedback from the training participants. Formative evaluation is mentioned in Gagné's 7th Event of Instruction: Providing Feedback. Are they getting it?

If your training participants "aren't getting it," it's your responsibility as the trainer to fix it. You need to make the necessary adjustments to improve the learning process.

***What* to assess?**

The types of areas to be assessed with formative evaluation can include the following:

- Are the instructional strategies being used appropriate for the objective?
- Are the learning activities relevant to the objectives and not just busywork?
- Are the objectives well-defined and well-articulated? (Do participants know what they are expected to learn?)
- Is the training session organized logically and orderly? (Is it sequenced right?)
- Are the training materials appropriate and easy-to-use?
- Is the training environment working correctly?
- Are there other trainer or training issues?
- What else do you want to know?

**Focus**

The focus is on obtaining feedback from your training participants to improve or validate the current training process.

**Important**

Formative evaluation is great because it allows you to make training improvements "on the spot." Be prepared to take action based on the feedback received. Make the necessary changes.

# Formative Evaluation Techniques

## Classroom Assessment Techniques

***How* to assess?**

Formative evaluation doesn't have to be complicated. It can take many forms. These different types of forms are known as Classroom Assessment Techniques (CATs). CATs help trainers learn what participants know or don't know.

**Classroom Assessment Techniques Characteristics[40]**

To be effective, your classroom assessment techniques should have the following characteristics:

- Learner-Centered
- Trainer-Directed
- Mutually Beneficial
- Formative
- Context-Specific
- Ongoing
- Rooted in Good Teaching Practice (Instructional System Design, Competency-Based Instruction)

**Classroom Assessment Techniques**

- Hands-on Exercises
- Problem-Solving Activities / Case Studies
- Scenarios
- Journals / Reflections
- Handouts / Worksheets
- Minute Papers (What was the most/least important thing you learned during this session?)
- Peer Teaching / Group Discussions
- Questions
- Graphic Organizers (Compare & Contrast, Pros & Cons, etc.)
- Para-phrasing

These are examples of Classroom Assessment Techniques. You are encouraged to develop and use your own CATs. Use the feedback to correct instructional problems on-the-spot or as the training session progresses.

## Formative Evaluation Exercise

Keeping your learning objectives and your audience in mind, work with a partner to discuss Classroom Assessment Techniques that you can apply in your training session to acquire participant feedback.

| ***What* do you want to evaluate?** | ***How* will you evaluate it?** |
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## Summative Evaluation

Summative evaluation is performed near or at the conclusion of the training session to determine the effectiveness of the instruction. Summative evaluation focuses on how well the training participants learned the objectives.[41] Summative evaluation looks at the effectiveness, efficiency, and benefits of the instruction.[42]

***What* to assess?**

The types of areas that can be assessed with summative evaluation include:

- Did training participants acquire the learning objectives?
- Were the instructional strategies applicable to the learning objectives? If not, how should they be revised?
- Was the original Training Plan implemented? If not, what changes were made?
- If the original Training Plan was followed, should it be revised? How?
- What else do you want to know?

**Focus**

The most important focus for summative evaluation is the acquisition of the learning objectives. Did your learners "get it?"

**Important**

Be prepared to take action based on the feedback received. Make the necessary changes to your training session – for the next time.

## Summative Evaluation Techniques

***How* to assess?**

Summative evaluation is usually a little more formal than formative evaluation. However, it doesn't have to be complicated either. It can take many forms.

**Summative Evaluation Techniques**

- Application Exercises
- On-the-Job Application
- Analysis of Formative Evaluations
- Post Surveys
- Post Interviews with Training Participants
- Training Evaluation Form
- Formal Examinations (Final Exams, Certification Exams)
- Final Projects
- Research Papers
- Portfolios

You are encouraged to develop and use your own techniques in your respective situations.

**Important**

Use the information obtained from summative evaluation to determine if the training was effective. If it wasn't, you need to correct the problems. Any necessary revisions should be made as soon as possible. You may also follow up with the training participants at a later date to correct the training if you find out it wasn't completely successful.

## Summative Evaluation Exercise

Upon completion of your training session, how will you evaluate your training?

How will you determine if the training participants acquired the learning objectives?

What will your evaluation method(s) be?

| ***What* do you want to evaluate?** | ***How* will you evaluate it?** |
|---|---|
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# Impact Evaluation

Impact evaluation is a method of judging the worth of a program after the training program has been implemented. It measures whether or not the training program had a positive impact. Impact evaluation is a systematic, purposeful process of studying, reviewing, and analyzing data gathered from multiple sources in order to make informed decisions about a program. It is a dynamic process, rather than a static one. The data gathered from evaluations influences subsequent decisions about the program.[43]

**What to assess?** Why do Impact Evaluation? What's the purpose? [44]

- Determines the merit and/or worth of the program.
  - Was the program worth doing – from an end-user, administrative, operational, political perspective?
  - Did the participants find the program worthy?
  - What did we do really well?
    - Celebrate success!
    - You can't celebrate a success if you don't know you had a success! Success gets you buy-in for the next time.
- Assesses impact of the program.
  - Did the participants "get it?"
  - Are the participants using the new skills in their "real-life" work responsibilities?
  - Are the materials being used?
- Identifies improvements for the program.
  - What could we have done better?
    - You can't fix it if you don't know about it.
  - What needs to be included?
  - What needs to be left out?
  - Who needs to be included or left out the next time?
- Provides accountability of the program.
  - Were the resources well-spent?
  - Did the right people participate?
  - Did the training program achieve its purpose?
- What else is of interest to you – or to the other stakeholders?

## Impact Evaluation Techniques

***How* to assess?**

Impact evaluation can be as formal or as informal as you need. It doesn't have to be complicated. It can take many forms.

**Impact Evaluation Techniques**

- Surveys
- Interviews
- Focus Groups
- Phone Calls
- Blogs

**Important**

"Future" training is influenced based on informed decisions from impact evaluation results.

## Impact Evaluation Exercise

Upon implementation of your training program, how will you evaluate its impact?

How will you determine if the training had worth?

What will your evaluation method(s) be?

| ***What* do you want to evaluate?** | ***How* will you evaluate it?** |
|---|---|
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# Training Plan

A Training Plan details instructor preparation for the training session. It prepares you, and other trainers, for training. Any trainer should be able to study the Training Plan and implement it with little or no difficulty.

This Training Plan is a guideline. As you plan your own training, make necessary changes to this plan: add your own items, delete some that aren't relevant to you, add your own notes, add relevant contact information such as the HelpDesk or Department numbers, etc.

**Suggested Training Plan Outline**[45]

1. Description of any pre-requisites for the training session.
2. Instructor requirements, if applicable. (certifications, degrees, faculty status, etc.)
3. Clear and complete description of the training session.
4. Copy of all the training materials and other documents related to the training.
5. Description of the target audience.
6. List of all the learning objectives.
7. Sequential course or module map.
8. Program of Instruction:
    - Explain face-to-face and hands-on approach. (or whatever your training approach is)
    - Follow Gagné's 9 Events of Instruction for each objective; including assessment.
    - Include the time frame to accomplish each objective.
9. Evaluation of the program: Formative, Summative, and Impact.
10. Directions for administering the course – if required.
    - Training accounts may need to be created and set up with appropriate information.
    - Are there any administrative duties? (registration, rosters, evaluations, etc?)
    - Is there any pre-work to be assigned and distributed to participants ahead of time?
11. Dry-Run directions and the prep time associated with it.
12. Contact and/or support information.

## Training Plan Exercise

Using the Training Plan as a guide, develop a Training Plan for your training session.

1. Description of any pre-requisites for the training session.

2. Instructor requirements, if applicable. (certifications, degrees, faculty status, etc.)

3. Clear and complete description of the training session.

4. Copy of all the training materials and other documents related to the training.

5. Description of the target audience.

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11. Dry-Run directions and the prep time associated with it.

12. Contact and/or support information.

## Summary

This "Instructional Strategies for Effective Training Delivery" training provided you with tools and resources for ***effective*** training delivery. The focus was on instructional strategies that foster a deep approach to learning.

The goal of the training was to have you deliver more *effective* training by applying instructional design principles throughout your own training. A desired outcome is to have you feel more *confident* delivering effective training.

Topics covered included:

- Training
- Objectives
- Brain and Information Processes
- Instructional Strategies
- Effective Trainer Elements
- Training Plan
- Competency-Based Instruction
- Activities
- A Deep Approach To Learning
- Gagné's 9 Events of Instruction
- Dry Run – Training Dress Rehearsal
- Evaluation / Assessment

**Practice Makes Permanent!**

"Practice doesn't make perfect; it makes permanent."[46] We learn something the way we practice it. If we practice something correctly, than yes, eventually we learn it "perfectly". If we practice something incorrectly, then eventually we learn it incorrectly - not perfectly. Our brains don't know the difference.

**WIFM**

**"W**hat's **I**n **I**t **F**or **M**e?" is the biggest motivator for most human activity. If you can't show your training participants how your training will benefit them, then your training is unlikely to be a success.[47]

**Effective Trainer**

One of the most important factors in a training session is the trainer! *Good trainers can make a poorly-developed program work well and they can make a well-developed program work great . . . . bad trainers can't make either one work.*[48]

**Make Training a Success!**

As the trainer, it is your responsibility to make training a success! Ensure success by being prepared, using relevant instructional strategies and activities, following Gagné's "training recipe", answering the WIFM!, and making your training environment a POSITIVE one! ☺

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